**The Challenges of Cultural Diversity regarding the Use of Smart Technology to Promote Sustainable Land Governance, Administration and Management in Liberia**

**Abstract**

This research discusses the significance of culture in the context of Land governance in Liberia and Africa. It highlights how culture influences administration, governance, and management practices related to land, specifically in Liberia.

The objective of this research is to identify the challenges of cultural diversity on the use of smart technology in promoting sustainable land governance, administration and management activities with respect to good governance principles. Research questions for this purpose were developed and used. This study will serve as guidelines for, judges and in general, the government by showing the pros and cons. The research was conducted in Liberia. The research used both primary and secondary sources of data. The research revealed that cultural diversity and the use of smart technology to promote sustainable land governance, administration and management activity in the country is being conducted by taking in to account principles of good governance. But still, there are gaps in the governance of the system. However, in the light of problem solving as well as inclusivity, transparency, responding to land issues as fast as possible, together with effectiveness, and the role Media and civil society organizations are playing, challenges still exist which need urgent solution.

**Key words:**Culture Diversity, Smart Technology, Land governance, Administration, Management, Sustainability

**Introduction**

In the mixed of the changing world and diverse culture, effective and sustainable land administration, governance management remain a serious challenge for many developing nation (Arko-Adjei, 2011). In many parts of the world, especially in Liberia and Africa at large, culture plays a vital role in the administration, governance and management of land (Brown, 2017) while land remains a highly valuable resource (African Union, 2010). This is true because majority of the land are obtained or inherited by cultural or traditional means (FAO, 2012). Culture often determines the way of life, the land value, the land use practices and development, policies, administration, technology and management techniques (Brown, 2017; FAO, 2012). Land are not only assets (Richards & Chauveau, 2007) but they are integral part of the social, religious and inheritance of the people (FAO, 2012; Peters, 2012) and are interwoven with land use practices and management (Arko-Adjei, 2011). This has huge influenced on how land should be governed, administered and managed (FAO, 2012; Namubiru-Mwaura *et al*., 2012). Most traditional authority still hold to the sacredness of land, customary tenure system and they believe that land boundaries are linked to ethnic identity and practices (Berry, 2001). Because of diversity and changes in cultures, is a huge set back. A culture varies from one region to another (Berry, 2001). Even within a nation, there exist a high disparity in culture that has different implications for land administration, management and governance (Peters, 2012; Obeng-Odoom, 2015; Richards & Chauveau, 2007). Although many nations’ cultures have changes fast, some are yet to evolve to align with current global technology, policies and administration evolution (Brottem & Unruh, 2009). Numerous evidences show that culture has the potential to influence the kind of technology for land administration, governance and management (Brottem & Unruh, 2009; Brown, 2017; Austin, 2010).

Liberia as a Nation has been lagging behind in the use of smart technology specifically in promoting sustainable land governance, administration and management in the country. Effective and sustainable land administration, governance and management are still a serious challenge (Brown, 2017). When technology was being bridled and harnessed globally from the period of 1990s (1990 – 2000) to the inception of the 21st century Liberia was at war thereby causing us to lag behind in the use of smart technology on the basis of the aforesaid the researcher decided to conduct this research.

This research is very cardinal to the social, economic and environmental transformation of Liberia. It serves as a source of information to help guide policy makers and stakeholders in harnessing the challenges posed by cultural diversity on the use of smart technology to promote sustainable land governance, administration and management in Liberia. This study will also serve as guidelines for researchers, academicians, students, judges and the policy makers to learn lessons from the challenges posed by cultural diversity on the use of smart technology to promote sustainable land governance, administration and management in Liberia. Specifically, it is essential for all on the area of land governance, administration and management and its co-existence with the principles of good governance; the challenges and prospects of the country’s sustainable land governance, administration and management.

**Materials and Methods**

This research employed a qualitative approach. Data were collected using questionnaires and interviews from relevant stakeholders at both governmental and non-governmental levels from institutions that are involved with issues relating to land governance, administration and management as well as land development and planning using smart technologies throughout the territorial boundaries of Liberia. The study used descriptive method with discourse and narrative which involve a critical explanation of the data.

The population for this study includes 100 participants that were legitimately chosen and have worked with the relevant land sector institutions for a period of at least three or more years (2018 up to the time of the interview and were all Liberian by nationality). According to the 2022 revision of the world population prospects, Liberia population was 5,193,416 in 2021 (world population prospect, 2022). Liberia has the total of sixteen (16) tribes spread across the fifteen (15) political sub-division of Liberia, with the Kpelleh tribe being the largest follow by the Bassa tribe (Ministry of Internal Affairs, 2018).

The study adopts a case study (Yin, 2003; Barry & Fourie, 2002; Silva & Stubkjaer, 2002) involving qualitative data analysis. The use of this methods guarantees the reliability of the data collection process (Yin, 2003). Data were collected on two stages. First, secondary data were gathered through literature review while the second stage was based on empirical evidence of case studies. The case studies were through Participatory engagements and interactions to understand the challenges posed by cultural diversity on the use of smart technology in promoting sustainable land governance, administration management.

Data were also collected by the use of prepared close ended questionnaire that was prepared and distributed to the selected interviewee by the interviewer to assert how the challenges of cultural diversity on the use of smart technology to promote sustainable land governance, administration and management in Liberia.

This fieldwork follows a descriptive, discourse and narrative analysis to critically explain the data. It enables the analysis of patterns within the data in order to facilitate a detailed account. Data were analyzed using Microsoft excel and Statistical Package for Social Scientist - SPSS. Data gathered during the conduct of this research was presented in tables, charts, figures and graphs where necessary.

**RESULTS AND DISCUSSIONS**

In this section, the researcher set to draft a complete results interpretations, findings and discussion of key findings on the specific study of the study regarding the Use of Smart Technology to Promote Sustainable Land Governance, Administration and Management in Liberia. A total of 100 questionnaires were distributed among the100 participants of the study area and all were returned fully responded to. The data collected from these questionnaires were analyzed below using tables.

**The Challenges Posed by Cultural Diversity on the Use of Smart Technology in Sustainable Land Governance, Administration and Management.**

The table below confirms that of the entire population of 100, (89) persons constituting 89%, agreed to the option **“all of these”** which identifies the challenges posed by cultural diversity as the result is shown in the table above **(see table below)**.

 **Table 1: Highlighting the Challenges posed by cultural Diversity in Liberia**

|  |  |  |
| --- | --- | --- |
| **The Challenges Posed by Cultural Diversity** | **Frequency**  | **Percentage**  |
| 1. Land owners who are predominantly people of culture beliefs with little or no knowledge on illiteracy to accept or give need to improvement within the land sector
 | 2 | 2% |
| 1. Lack of good internet connectivity and high illiteracy rate, war, underdevelopment and poor economic growth.
 | 4 | 4% |
| 1. Application of Smart technology in sustaining land governance, Management, and Administration
 | 5 | 5% |
| 1. All of These
 | 89 | 89% |
| **Total**  | **100** | **100%** |

**Conclusion**

This study was conducted to identify the challenges posed by cultural diversity on the use of smart technology in promoting sustainable land governance, administration, and management in; to know the characteristics of cultural practice that support land acquisition in Liberia; and to examine the links between cultural diversity and land governance, administration and management.

Evidence from this study suggests that, that some challenges posed by culture diversity is as the result of Liberia being a country that has wide diversity of traditional heritage ranging from one ethnic group to another thereby causing the use of smart technology not applicable in sustaining land governance, management and administration.

Also, 5% of the total respondents indicates that Lack of internet connectivity and high illiteracy rate and the fourteen years of civil war cause many homeless and underdeveloped while 2% of the entire population reported the adverse effect on land owners who were predominantly people of culture beliefs with little or no knowledge on education, refusal to accept or give need to improvement within the land sector.

Therefore, some of the main land issues in Liberia today are the displacement of local communities related to government land concessions for logging, mining, and large-scale agriculture; urban property; and woman’s land rights.

However, the study was limited by three main factors; lack of adequate funding was a major challenge that the researcher faced when conducting this study; the time allocated the researcher to conduct this study was very limited; and Scarcity of baseline data from both governmental and non-governmental sources to contribute to the researcher’s review of related literature was a major challenge that was posed while conducting this study.

The researcher recommends that the Liberia Land Authority should reconsider land issues in Liberia and develop a comprehensive land use policy and plan of the country, with a focus on cultural diversity and smart technology in order to promote sustainable land governance, administration and management in Liberia.

Disclaimer (Artificial intelligence)

Option 1:

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

Option 2:

Author(s) hereby declare that generative AI technologies such as Large Language Models, etc. have been used during the writing or editing of manuscripts. This explanation will include the name, version, model, and source of the generative AI technology and as well as all input prompts provided to the generative AI technology

Details of the AI usage are given below:

1.

2.

3.

**Reference**

African Union, (2010). Framework and Guidelines on Land Policy in Africa. Land Policy in Africa: A Framework to Strengthen Land Rights, Enhance Productivity and Secure Livelihoods. UC-ECA-AfDB fromhttp://www.uneca.org/ sites/default /files/Publication Files/ fg\_on\_land\_policy\_eng.pdf.

Arko-Adjei, A. (2011). Adapting Land Administration to the Institutional Framework of Customary Tenure. The Case of Peri-Urban Ghana. Proefschrift. Technische Universiteit Delft. # 39 Sustainable Urban Areas Series. University of Delft, Delft, the Netherlands.

Berry, S. (2001).Chiefs Know their Boundaries. Essays on Property, Power, and the Past in Asante, 1896-1996. Portsmouth & Oxford: Heinemann & James Currey.

Brown, D. (2017).Social dimensions of land rights reform in Liberia: Some unresolved issues and policy dilemmas. Dev Policy Rev. 2017;35:O270–O286. <https://doi.org/10.1111/dpr.12322>

Brottem, L., & Unruh, J. (2009).Territorial tensions: Rainforest conservation, postconflictrecovery, and land tenure in Liberia. Annals of the Association of American Geographers, 99, 995–1002. <https://doi.org/10.1080/00045600903202855>

FAO/UN. (2012).Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security. http://www.fao.org/docrep/ 016/i2801e/i2801e.pdf.

Ministry of Internal Affairs (2018). Report on the indigenous Liberian and the sixteen tribes

Namubiru-Mwaura, E., Knox, A., & Hughes, A. (2012).Customary land tenure in Liberia: Findings and implications drawn from 11 case studies (USAID Report). Retrievedf [https://www.landlinks.org/wpcontent/uploads/2016/09/USAID\_Land\_Tenure\_L](https://www.landlinks.org/wpcontent/uploads/2016/09/USAID_Land_Tenure_L%20) [iberia\_LPIS\_Synthesis\_Report.pdf.](https://www.landlinks.org/wpcontent/uploads/2016/09/USAID_Land_Tenure_Liberia_LPIS_Synthesis_Report.pdf)

Peters, P. E. (2012).Conflicts over land and threats to customary tenure in Africa Today. CID Working Papers no. 247. Center for International Development at Harvard University.

Richards, P., & Chauveau, J.-P. (2007).Land, agricultural change and conflict in West Africa: Regional issues from Sierra Leone, Liberia and Côte d’Ivoire. Historical overview. Retrieved from http://www.oecd.org/countries/sier- raleone/39495967.pdf

World population prospect (2022). Statistics on countries population and economic growth.